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ABSTRACT

While little research has been done in the area of shyness and most of that has been descriptive, both theory and research suggest that investigation of expectancy of success and attributional style differences between shy and not-shy individuals is warranted. Very shy (N=49) or not-shy (N=48) female subjects, selected from an initial group of 698 male and female volunteers, interacted with a male and female confederate pair (posing as subjects) in order to examine the cognitive and emotional factors maintaining shyness. During interaction, the confederate pairs responded to female subjects positively, neutrally, or negatively, depending upon assigned condition. Shy and not-shy subjects completed the Social Evaluation Reaction Questionnaire prior to the interaction and the Attribution Questionnaire after the interaction. Analyses of results revealed that very shy women expected less positive outcomes from social interactions and interpreted such outcomes to fit their negative self-concepts. The findings suggest that given the shy woman's tendancy to interpret social situations in ways consistent with her negative self-concept, social success alone will not alter her shyness; the circle of expectation and interpretation itself must be altered. (Author/PAS)

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Cognitive and Emotional Factors Maintaining Shyness[1]

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Running head: Cognitive and Emotional Factors Maintaining Shyness

Abstract

This study examined the cognitive and emotional factors that maintain shyness. Each very shy (n=49) or not-shy (n=48) female subject interacted with a male and female confederate pair (posing as subjects) who responded positively, neutrally, or negatively toward the subject depending upon the assigned condition. Subjects' expectations, perceptions, interpretations, and emotional reactions were measured. It was found that very shy women expect less positive outcomes from social interactions and interpret such outcomes so as to fit their negative self-concepts. The implications of this pattern for future social behavior are discussed.

Cognitive and Emotional Factors Maintaining Shyness

Shyness, an insidious personal problem and a widespread phenomenon, may well increase in the future as social forces (i.e., trends toward increasing economic instability, divorce, mobility, and impersonalization) intensify our isolation, competition, and loneliness. Zimbardo (1977), in a survey of 5,000 people from the United States and other countries found shyness to be not only a common ailment but a universal one as well. In every culture he studied at least 25 percent of the members of that culture considered themselves to be presently shy. Overall, 80 percent of his sample said that they had been shy at some point in their lives, 40 percent considered themselves to be presently shy, 25 percent reported that they were shy now and always had been, and only 7 percent declared that they had never experienced feelings of shyness. Of the shy individuals, 80 to 90 percent viewed their shyness as a problem since it greatly limited their capacity to enjoy potentially rewarding interactions with others, prevented them from speaking up for their own rights, hampered their ability to think clearly and communicate effectively, and often exacerbated their feelings of depression, anxiety, and loneliness. Although these forms of debilitation created by shyness may vary considerably in intensity among its sufferers, shyness can often be severe, even to the point of forcing some into complete social isolation. Thus, given the prevalence of shyness and the probable suffering created by it, this condition clearly warrants attention.

Very little research has been done in the area of shyness and most of that is primarily descriptive in nature. The one available study considering the factors causing or maintaining shyness (i.e., Brodt & Zimbardo, 1981) hypothesized that shyness may be due to misattribution: attributing causality for shy reactions to oneself rather than to the situation. They found that when extremely shy women misattributed their arousal symptoms during an interaction to a nonpsychological source (high frequency noise), these women acted similar to the not-shy women in the experiment. Furthermore, their level of physiological arousal declined over the course of the interaction and they enjoyed the interpersonal encounter more than did the shy and not-shy controls. Hence, altering the shy womens' attributions for their shy reactions effected significant behavioral improvement.

Since there are no other examinations of attributional styles in shy individuals, the attribution research on related populations merits review. Objectively self-aware individuals, those who tend to engage in self focused attention (as shy individuals do, at least in social evaluative situations; Hatvany, Sousa-Silva, & Zimbardo, Note 1), are more likely to attribute causality for both positive and negative outcomes to internal than to external factors (Buss & Scheier, 1976; Duval & Wicklund, 1973; Fenigstein, 1979). Similarly, Ickes and Layden (1978) found that individuals with low self-esteem (shyness correlates .51 with low self-esteem; Buss, 1980) attribute negative outcomes more to internal factors than do those with high self-esteem. However, for

positive outcomes the reverse was found; individuals with low self-esteem attribute positive outcomes less to internal factors than do those with high self-esteem.

Thus, it appears that individuals with low self-esteem carry the maladaptive process one step further than do those who are objectively self-aware. Both groups blame themselves too much for negative outcomes but those with low self-esteem also do not give themselves enough credit for success. The latter tendency was thought to be manifested in even more extreme form in a low socially competent group (whose definition seemed to incorporate shyness). Based on informal interview data, Reckman (Note 2) found that low socially competent individuals tend to attribute positive outcomes more to external factors than to internal ones.

The importance of examining such attributional style differences is indicated by a series of experiments which demonstrated that people who changed their attributional styles from the low self-esteem pattern to the high self-esteem pattern (i.e., attributing positive outcomes internally and negative outcomes externally) also showed a consequent gain in self-esteem (Ickes & Layden, 1978).

While the above researchers concentrated mainly on attributional style differences, McMahan (1973) suggests that expectancy of success may be the crucial variable in the overall process. Typically there are sex differences in both expectancy of success and in attributional styles, but McMahan found that when the usual sex differences in expectancy of success were absent, the usual sex differences in

attributional styles were not present either. Although it is doubtful that expectancy of success is the critical factor in the overall process since two previously mentioned studies (i.e., Brodt & Zimbardo, 1981; Ickes & Layden, 1978) demonstrated that changes in attributional styles were accompanied by increased self-esteem and decreased shyness, it could very well be that the two processes are intertwined. For example, one theory states that performance consistent with expectancy of success is attributed to stable internal factors, such as ability or lack of ability, and performance inconsistent with expectancy of success is attributed to one or more temporary factors, such as luck or lack of effort rather than ability (Deaux & Farris, 1977).

In conclusion, both the theory and the research suggest that further investigation of expectancy of success and attributional style differences between shy and not-shy individuals is warranted. However, due to the considerable difficulty encountered in recruiting shy males for a pilot study of this investigation, it was determined that only differences between very shy and not-shy women would initially be examined. The major hypotheses tested in this study follow.

1. Very shy women would have a lower expectancy of success than would not-shy women. This was hypothesized because high socially anxious individuals (of which shy individuals are thought to be a subcategory; Buss, 1980) tend to have a lower expectancy of success than do low socially anxious individuals (Clark & Arkowitz, 1975; O'Banion & Arkowitz, 1977; Sutton-Simon, 1979).

2. Very shy women would attribute negative outcomes more to internal factors and positive outcomes less to internal factors than would not-shy women. This was hypothesized because previous researchers have demonstrated this with those populations which are most similar to the shy population.

Method

Subjects

Subjects in the first phase of this study were 698 male and female volunteers from the introductory psychology courses at the University of Cincinnati. In the second phase of this experiment, 49 very shy and 48 not-shy females from the above sample were used.

Pretest Measures

Six hundred ninety-eight subjects first completed the Shyness Survey (SHY: Christian, Note 3), the Texas Social Behavior Inventory (TSBI: Helmreich, Stapp, & Ervin, 1974), and the First Encounter Behavior Inventory (FEBI: Steffen, Note 4). The SHY, TSBI, and FEBI are measures of self- eported shyness, social self-esteem, and social skillfulness, respectively. The SHY asks questions about the nature and extent of the responsdent's shyness, the TSBI requests respondents to provide information about the degree of self-confidence they have in a variety of areas, and the FEBI asks for the respondent's typical response to various situations where the respondent would have the

opportunity to meet an attractive person of the opposite sex.

Procedure

During the administration of these questionnaires, subjects were informed that they might be requested to participate in the second phase of the experiment which would concern the strategies people use in becoming acquainted. Interested subjects were told to provide their first names and telephone numbers so they could be contacted for this purpose.

Very shy and not-shy females were determined by taking the upper and lower quartiles of scores on the SHY scale. These subjects were then contacted by telephone and asked to participate in the second phase of this study. Those who agreed were given an individual appointment for the experiment.

These participants were randomly assigned to three conditions: positive interaction, neutral interaction, or negative interaction. Opposite sex confederate pairs were then randomly assigned so that each pair would interact with an equal number of very shy and not-shy subjects in each condition.

During the second phase of the experiment the subject and two confederates posing as subjects were escorted from a waiting room into the experimental room, which was equipped with a one-way mirror and three chairs facing one another. The confederates were treated throughout the interaction as if they were subjects. The three participants (one subject and two confederates) were informed that the

study concerned the strategies people use to become acquainted with one another and that their task, therefore, was to become acquainted with each other. They were also told that everyone should participate and that judges would be evaluating their social performance from behind the one-way mirror.

The acquaintance process lasted 10 minutes with confederates varying their responses depending upon the assigned condition. During the entire neutral interaction and during the first 3 minutes of the other two interactions, confederates were instructed to respond neutrally. A neutral response required that they be attentive, but not enthusiastic, and that they divide their attention equally between their partner and the subject, making sure that no one person either dominated the conversation or was left out of it.

During the positive interaction confederates were directed to respond gradually more positively toward the subject so that by the 4th minute they would be focusing all of their attention on the subject. Thus, during the last 6 minutes of the positive interaction confederates were not supposed to talk with one another and they were to redirect the focus of the conversation back onto the subject should she attempt to draw out one of them. Confederates were further instructed to convey an attitude of keen interest and enthusiasm by leaning forward, smiling, nodding, maintaining good eye contact, and verbally reinforcing the subject's responses.

In the negative interaction the confederates were told to respond toward each other as they had toward the subject in the positive

interaction. Thus, they gradually focused all of their attention on each other while leaving the subject out of their conversation.

Judges observed the interactions and completed rating scales on the confederates' performances (Christian, Note 5). These rating scales were used as a manipulation check to ensure that the confederates responded in the designated fashion toward the subjects.

Subjects completed the Social Evaluation Reaction Questionnaire (SERQ: Christian, Note 6) prior to the interaction and the Attribution questionnaire (AQ: Christian, Note 7) after the interaction. The SERQ measures expectancy of success in a social interaction and attempts to elicit feelings about being evaluated. For example, it requests respondents to provide information about their degree of worry concerning their social performance, their expectations about the adequacy of their social performance, and their anticipated feelings regarding the receipt of a negative social performance evaluation. The AQ was designed to elicit feelings and reactions to the interaction, especially internal and external attributions of causality. For example, subjects were asked to relate their feelings about the interaction, to give their perceptions of how the confederates responded to them, to rate the adequacy and typicality of their own performance, and to attribute responsibility to themselves and/or the confederates for how the interaction went.

Summary of Dependent Measures

1. Amount of worry regarding social performance. (SERQ & AQ:

question 1- "How worried are you about being negatively evaluated?" Responses range from "extremely worried" to "not at all worried".)

2. Expectancy of social success prior to social engagements. (SERQ: question 2- "What kind of evaluation do you expect to receive?" Responses range from "very positive" to "very negative".)

3. Perception of social success following social engagements. (AQ: question 2- "What kind of evaluation do you expect to receive?" Responses range from "very positive" to "very negative".)

4. Confidence in judgment. (SERQ & AQ: question 3- "You just indicated what type of evaluation you expect to receive. How confident are you in your judgment about this?" Responses range from "91-100%" or 'almost certain" to "0-10%" or "almost completely unsure".)

5. Expected impact of receiving a negative social performance evaluation. (SERQ: questions 4 & 5- "How bad would you feel if you received: a negative evaluation; a very negative evaluation?" Responses range from "extremely bad" to "not at all bad".)

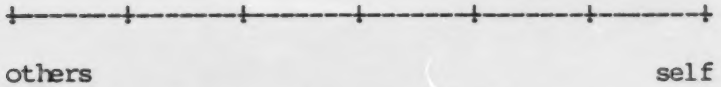
6. Feelings about social interactions. (AQ: questions 4, 9, & 11- e.g., "How do you feel overall about how this interaction went for you?" Responses range from "extremely bad" to "extremely good".)

7. Perception of others' responses in social interactions. (AQ: question 6- "How did the other two people in this interaction respond to you?" Responses range from "very positively" to "very negatively".)

8. Perception of own social skill. (AQ: question 7- "Rate the adequacy of your own performance." Responses range from "very socially skilled" to "very inadequate".)

9. Perception of others' social skill. (AQ: question 7- "Rate the performance adequacy . . . of the other two participants." Responses range from "very socially skilled" to "very inadequate".)

10. Attribution of responsibility for social interactional outcomes. (AQ: questions 13, 14, & 15- e.g., "Who's responsible for how you felt overall about this interaction?" Subjects assigned responsibility by marking this line:



Thus responsibility could be assigned totally to the subject, totally to the other participants, or to all three participants in varying combinations of shared responsibility.

Results

Manipulation Checks

Judges who were blind to the experimental condition completed rating scales regarding confederate behavior to assess confederate performance differences across conditions and confederate consistency within conditions. One quarter of the interactions were rated simultaneously by two independent judges so that reliability of the judges' ratings could be evaluated. There was a high level of agreement among judges' ratings which was determined by dividing the total number of responses into the number of agreements. Inter-rater agreement was .88 overall. Mean judges' ratings from the Judge's Rating Scale indicated that confederates performed in accordance with their instructions. Furthermore, ample evidence was obtained when debriefing the subjects to indicate that they were not aware of the true role of the confederates. One problem, however, was noted: subjects experienced the negative condition as being less negative than was intended.

Validation of the SHY

The reliability of the SHY has not yet been thoroughly examined; however, adequate internal consistency was substantiated by the high Cronbach alpha of .866 obtained from an analysis of the data collected from the original 698 subjects. Data in support of both the construct validity and the predictive validity of the SHY were accumulated in the

present study as well. The construct validity of this measure was substantiated by the correlations between the SHY and two other measures: the TSBI (r=-.66) and the FEBI (r=-.27), as well as by the fact that those who reported being more severely shy obtained higher scores on the SHY. (The overall shyness score correlated .67 with considering oneself to be dispositionally shy rather than situationally shy, and .62 with the tendency to both feel and act shyly rather than just to feel shy.) The evidence for predictive validity is that those who obtained high scores on the SHY responded in ways that shy persons were expected to respond based on the existent literature on shyness. Taken together, these results offer considerable support for the validity of the SHY.

Dependent Measures

A two (type: shy and not-shy) by three (condition: positive, neutral, and negative) analysis of variance was performed on each of the dependent measures; multivariate analyses of variance, as well, were computed upon clusters of dependent measures that combined together to tap a single theme. The results from these analyses are summarized in Tables 1 & 2.

Insert Tables 1 & 2 about here.

Expectation. It was hypothesized that very shy women would have a lower expectancy of success than would not-shy women and the findings support this hypothesis. Both before and after the interaction very shy women reported that they expected a slightly positive evaluation (Before: $\bar{X}$=3.23; F (1,90) = 27.55, p< .001; After: $\bar{X}$=3.27; F (1,90) = 26.48, p< .001) and that they were slightly worried about receiving a negative evaluation (Before: $\bar{X}$=4.02; F (1,90) = 19.08, p< .001; After: $\bar{X}$=4.23; F (1,90) = 12.33, p< .001) whereas not-shy women reported that they expected a moderately positive evaluation (Before: $\bar{X}$=2.19; After: $\bar{X}$=2.27) and that they were not at all worried about receiving a negative evaluation (Before: $\bar{X}$=4.60; After: $\bar{X}$=4.71). Even when performance was fairly standardized (e.g., in the negative condition where all subjects were ignored) very shy women still expected a less positive evaluation than did not-shy women.

A second expectational set was noted: very shy women anticipate experiencing a greater impact from negative feedback than do not-shy women. Very shy women said that they expected to feel moderately bad if they received a very negative evaluation ($\bar{X}$=2.96) whereas not-shy women said that they expected to feel slightly bad ($\bar{X}$=3.52; F (1,90) = 5.94, p< .05).

Perception. Differences between very shy and not-shy women's perceptions were observed in three areas: perception of their own performance, perception of the confederates' performance, and perception of the confederates' response.

First, very shy women rated their performance as less skilled

($\bar{X}$=18.9) than did not-shy women ($\bar{X}$=23.0; F (1,88) = 19.44, p< .001). Even when performance was fairly standardized (e.g., in the negative condition where all subjects were ignored) very shy women still rated themselves as less socially skilled than did not-shy women. Thus, very shy women seem to underestimate their social skill.

Second, it was unexpectedly found that very shy women rated the confederates as being slightly less skilled ($\bar{X}$=22.3) than did not-shy women ($\bar{X}$=23.8; F (1,88) = 4.62, p< .05). Furthermore, this difference was greatest for the positive condition and disappeared completely in the negative condition (although there was no significant type by condition interaction).

Third, it was found that very shy women perceived the confederates' response as being slightly less positive ($\bar{X}$=1.89) than did not-shy women ($\bar{X}$=1.57). While both very shy and not-shy women rated the confederates' response as being somewhat to very positive, very shy women rated it as being significantly less positive than did not-shy women (F (1,83) = 6.03, p< .05).

Attribution of responsibility. The hypothesis for the attribution of responsibility questions was that very shy women would attribute a negative outcome more to internal factors and a positive outcome less to internal factors than would not-shy women. Contrary to expectation no significant effects were found at all and the only effects that even approached significance were a type effect for attributing responsibility for the overall interaction (F (1,90) = 3.61, p< .061) and a type effect for the multivariate analysis which combined

attributions of responsibility for one's own performance, for the confederates' response, and for the overall interaction (F (3,88) = 2.34, $p < .078$). While both very shy and not-shy women attributed somewhat more responsibility to themselves than to the others, very shy women attributed less responsibility to themselves ($\bar{X}$=15.3) than did not-shy women ($\bar{X}$=17.5). Given the problems with the attribution of responsibility questions[2] and the fact that all three conditions were experienced as being more positive than negative, this result does offer some slight support for the latter half of the hypothesis: that very shy women would attribute a positive outcome less to internal factors than would not-shy women. The lack of support for the first half of the hypothesis is probably due to the fact that the negative condition was experienced as less negative than intended.

Emotional Reaction. Given the previous results, it is understandable that very shy women (regardless of condition) felt less positively about every aspect of the interaction than did not-shy women (i.e., they felt less positively about their own performance, the confederates' response, and the interaction overall). Very shy women reported that they felt slightly good about the interaction ($\bar{X}$=20.4) whereas not-shy women reported that they felt moderately good ($\bar{X}$=22.8; F (3,86) = 7.65, $p < .001$).

Additional findings. A significant type by condition interaction was obtained for subjects' typicality ratings of their performances (F (2,90) = 4.07, $p < .05$). It seems that one way very shy women maintain their view of themselves as socially unskilled in the face of

contradictory evidence is to say that a good performance is not typical of their general style. In the present study very shy women rated their performance in the positive condition as less typical ($\bar{X}$=2.28) than did not-shy women ($\bar{X}$=1.41). When adequacy of performance ratings were substituted for condition a similar result was found: among subjects who rated their performance as more adequate, very shy women rated their performance as less typical ($\bar{X}$=2.25) than did not-shy women ($\bar{X}$=1.31).

Finally, it was found that neither low self-esteem (TSBI) nor low social skillfulness (FEBI) could explain the observed differences between very shy and not-shy women since these differences remain when the effect of either variable is statistically removed with an analysis of covariance.

Discussion

Overview

The cognitive and emotional factors examined in this study can be divided into four categories: expectation prior to the interaction, perception of the events in the interaction, interpretation of the data obtained from the interaction, and emotional reaction to the interaction. Very shy women differ from not-shy women on all of these dimensions and probably each plays some role in maintaining shyness. However, certain factors likely play a more important role than others.

Expectation

It was no surprise to find that very shy and not-shy women's expectations regarding social interactions differ. Very shy women had a lower expectancy of success and they expected to feel worse should they receive negative feedback. Such expectations are important variables in maintaining shyness since they probably contribute a great deal to the maintenance of avoidance behavior. If very shy women expect a situation to be negative they are probably more likely to avoid it, thus eliminating the possibility that they will learn that their expectations were faulty.

Perception

On rational grounds one might expect shy individuals to misperceive others' reactions as being less positive than they really are since this could at least partially explain why social interactions are so aversive for shy individuals. However, in the present study very shy women differed very little from not-shy women in their perception of the confederates' response. Hence it seems quite doubtful that this factor is an important variable in maintaining shyness.

A more important difference exists between very shy and not-shy women's perception of their own social skill. Very shy women misperceive their own performances as being less skillful than they actually are. This does seem to be a misperception rather than simply an accurate assessment of true performance differences because even when performance was fairly standardized (e.g., in the negative condition

where all subjects were ignored) very shy women still rated their performance as less skilled than did not-shy women. This tendency to underestimate their social skill is probably an important factor in maintaining very shy women's lower expectancy of success.

The difference between very shy and not-shy women's perception of the confederates' social skill in the positive condition can be explained more easily once the difference between very shy and not-shy women's interpretation of the data obtained from social interactions is understood. Therefore, the discussion of this finding will be postponed until the following section on interpretation.

Interpretation

There were several examples in the present study depicting the strategies very shy women use to interpret data from social interactions in ways that are consistent with their negative self-concepts. They did not give themselves enough credit for positive outcomes, they blamed themselves too much for negative outcomes, they discounted their own skilled performances, and they discounted the confederates' positive responses by devaluing the confederates.

It appears that very shy women experience positive responses as being inconsistent and negative responses as being consistent with their negative view of themselves. Thus, they discounted positive responses by taking less personal credit for them (i.e., by failing to make internal attributions for such responses) and they blamed themselves for negative responses. Their performance adequacy ratings illustrate this

latter tendency.

In the negative condition (where performance differences among either confederates or subjects would be small since all confederates behaved similarly and all subjects were ignored) very shy women rated their own performance as much less skilled than did not-shy women. Objective evidence certainly would not support such subject perceptions. Furthermore, very shy women rated the confederates' performance as more skilled in the negative condition than in the other two conditions, whereas not-shy women rated the confederates' performance similarly across conditions. Very shy women certainly did not blame the confederates for ignoring them but rather seemed to have blamed themselves. In contrast, not-shy women appeared not to have blamed themselves as much since their confederate ratings were less favorable and their self ratings were more favorable than those of the very shy women.

The third strategy used by very shy women to maintain their negative self-concepts was that they discounted their own skillful performances. When very shy women performed more competently (i.e., in the positive condition) or when they viewed themselves as having performed more competently, they maintained their view of themselves as socially incompetent by stating that this performance was not typical of their general style. Possibly they attributed the good performance to characteristics of the situation rather than to their own social skill. If this were the case then it would also be another example of how very shy women fail to attribute internal causality for positive outcomes.

The final strategy used by very shy women to maintain their negative self-concepts was that they discounted the confederates' positive responses by devaluing the confederates. Overall, very shy women rated the confederates' performance as being slightly less skilled than did not-shy women, but in the negative condition this difference in adequacy ratings disapppeared. It cannot be that very shy women are simply generally more critical of others because one would not expect the difference in ratings to disappear in the negative condition and furthermore, that would be inconsistent with previous research which indicates that very shy women tend to overestimate others' social skill (Libert, Note 8). A more likely interpretation of this finding is as follows.

In the positive and neutral conditions (but not in the negative condition), the confederates' response was incongruous with the very shy women's negative self-concepts. Thus, in these conditions the very shy women devalued the confederates (i.e., rated them as less socially skilled) to discount the positive response and to maintain their negative view of themselves. In the negative condition this was not necessary and so no difference in ratings was found.

Taken together these four examples offer reasonable support for the idea that one of the important factors maintaining shyness is very shy women's tendency to interpret the data they obtain from social situations in ways that will be congruent with their negative self-concepts. With such a style of interpretation the most positive encounter can still be experienced as negative and thus even seemingly positive experiences will not be able to alter very shy women's negative

expectational set.

Emotional Reaction

Given very shy women's tendency to interpret social situations in ways that are consistent with their negative self-concepts it is not surprising to find that they also feel less positively about the social interactions they do engage in than do not-shy women. Regardless of how positive the interaction might be, very shy women tend to have less favorable emotional reactions to the situation than do not-shy women.

General Conclusions

While we still do not know whether these cognitive and emotional factors (i.e., lower expectancy of success, misperception of own social skill, misinterpretation of data from social interactions, and less favorable emotional reactions to social situations) initially cause shyness, it is very likely that they do serve to maintain it. It is a vicious circle. Very shy women enter social situations expecting failure and then, regardless of the outcome, interpret the situation in ways that will be consistent with their negative self-concepts. They blame themselves for real or imagined negative reactions and discount any positive reactions they do perceive. Hence, they feel less positively about social interactions and their expectations regarding social interactions remain unchanged. It is this vicious circle of expectation and interpretation that must be broken, because until it is, all the social success in the world will not likely alter that person's shyness.

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Footnote

[2]These questions were long, somewhat complicated, and more abstract than they needed to be. Furthermore, they were administered near the very end of the experiment when subjects were probably less motivated to comprehend them.

Table 1

Analysis of Subjects' Reactions: Means and Standard Deviations

	Means								Standard Deviations
	Shy				Not-Shy				
	Positive	Neutral	Negative	Total	Positive	Neutral	Negative	Total	
Expectations Before Interaction									
Expected evaluation	3.22[a]	3.20	3.27	3.23	2.06	2.25	2.27	2.19	.97
Worry about evaluation	3.94[b]	3.93	4.20	4.02	4.76	4.63	4.40	4.60	.66
Expected impact of a:									
negative evaluation	3.56[c]	3.87	3.60	3.67	4.29	4.25	3.73	4.09	.80
very negative evaluation	2.61	3.20	3.13	2.96	3.71	3.94	2.80	3.52	1.09
Expectations After Interaction									
Expected evaluation	3.11[a]	2.80	3.93	3.27	1.94	2.19	2.73	2.27	.95
Worry about evaluation	4.17[b]	4.27	4.27	4.23	4.76	4.75	4.60	4.71	.67
Perception									
Of own performance	19.9[d]	20.2	16.2	18.9	24.6	23.3	20.7	23.0	4.55
Of confederates' performance	22.2	21.0	23.7	22.3	24.1	23.8	23.5	23.8	3.49
Of confederates' response	1.44[e]	1.73	2.53	1.89	1.21	1.31	2.23	1.57	.61
Attributions of Responsibility									
For own performance	17.5[f]	14.7	15.8	16.1	18.2	18.4	17.1	18.2	5.31
For confederates' response	18.0	15.6	15.0	16.3	15.7	14.3	16.5	15.7	5.20
For overall interaction	14.2	16.3	15.5	15.3	16.9	17.3	17.8	17.5	5.24
Emotional Reaction									
To own performance	19.7[g]	21.1	15.5	18.8	25.4	23.3	20.0	23.1	4.26
To confederates' response	22.9	21.0	16.3	20.2	25.6	24.2	19.0	23.1	3.87
To overall interaction	22.1	22.1	16.7	20.4	25.1	23.5	19.2	22.8	3.76
Additional Finding									
Typicality of own performance	2.28[h]	2.20	2.20	2.22	1.41	1.69	2.33	1.81	.71

[a] 1=very positive
7=very negative

[b] 1=extremely worried
5=not at all worried

[c] 1=feel extremely bad
5=feel not at all bad

[d] 0=very inadequate
28=very socially skilled

[e] 1=very positive
5=very negative

[f] 0=confederates totally responsible
13=confederates and subject equally responsible
26=subject totally responsible

[g] 0=feel extremely bad
28=feel extremely good

[h] 1=very typical
5=very atypical

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Table 2

Analysis of Subjects' Reactions: F Values

	Type			Condition			Type x Condition		
Expectations Before Interaction									
Expected evaluation	27.55[a]	***	(1,90)[b]						
Worry about evaluation	19.08	***	(1,90)						
Above 2 combined	15.67	***	(3,88)						
Expected impact of a:									
negative evaluation	7.12	**	(1,90)						
very negative evaluation	5.94	*	(1,90)	2.68	p<.074	(2,90)	3.80	*	(2,90)
Above 2 combined	3.37	*	(2,89)				2.31	p<.05	(4,178)
Expectations After Interaction									
Expected evaluation	26.48	***	(1,90)	7.66	***	(2,90)			
Worry about evaluation	12.33	***	(1,90)						
Above 2 combined	12.61	***	(3,88)	2.48	*	(6,176)			
Perception									
Of own performance	19.44	***	(1,88)	6.05	**	(2,88)			
Of confederates' performance	4.62	*	(1,88)						
Above 2 combined	9.91	***	(2,87)	7.03	***	(4,174)			
Of confederates' response	6.03	*	(1,83)	24.92	***	(2,83)			
Attributions of Responsibility									
For own performance									
For confederates' response									
For overall interaction	3.61	p<.061	(1,90)						
Above 3 combined	2.34	p<.078	(3,88)						
Emotional Reaction									
To own performance	22.09	***	(1,88)	11.86	***	(2,88)			
To confederates' response	12.71	***	(1,88)	24.74	***	(2,88)			
To overall interaction	9.08	**	(1,88)	20.37	***	(2,88)			
Above 3 combined	7.65	***	(3,86)	8.18	***	(6,172)			
Additional Finding									
Typicality of own performance	9.20	**	(1,90)	2.95	p<.058	(2,90)	4.07	*	(2,90)

[a]F value [b]degrees of freedom *p<.05 **p<.01 ***p<.001